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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,602	08/27/2003	Karl Schrodinger	M&N-IT-557	5514
24131 7590 08/22/2007 LERNER GREENBERG STEMER LLP P O BOX 2480 HOLLYWOOD, FL 33022-2480			EXAMINER PHAN, HANH	
			ART UNIT 2613	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/649,602	<b>Applicant(s)</b> KARL SCHRODINGER	
	<b>Examiner</b> Hanh Phan	<b>Art Unit</b> 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 May 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14, 16, 17 and 20-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20, 21 and 27-33 is/are allowed.
- 6) ☒ Claim(s) 14, 16, 17 and 22-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This Office Action is responsive to the Amendment filed on 05/31/2007.
2. The indicated allowability of claims 19-21 is withdrawn in view of the newly discovered reference(s) to Shimizu (Pub. No.: US 2002/0175272 A1) and Ohtsuka et al (US patent No. 5,182,448). Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 14, 16 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu (Pub. No.: US 2002/0175272 A1).

Regarding claim 14, referring to Figures 1, 2, 4 and 8, Shimizu teaches an optical receiver circuit, comprising:

a differential amplifier (i.e., differential amplifier 33, Fig. 1) including a first input and a second input (i.e., Fig. 1, pages 3-6, paragraphs [0031]-[0080]);

an optical reception device (i.e., photodiode D1, Fig. 1) connected to the first input of the differential amplifier by a first preamplifier (i.e., pre-amplifier A1, Fig. 1), the

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optical reception device having an electrical behavior in an illumination-free case (i.e.,

Fig. 1, pages 3-6, paragraphs [0031]-[0080]);

an electrical element (i.e., dummy photodiode D2, Fig. 1) for simulating the electrical behavior of the optical reception device in the illumination-free case, the electrical element connected to the second input of the differential amplifier by a second preamplifier (i.e., second preamplifier A2, Fig. 1) (i.e., Fig. 1, pages 3-6, paragraphs [0031]-[0080]); and

the first preamplifier and the second preamplifier being identical transimpedance amplifiers (i.e., Fig. 1, pages 3-6, paragraphs [0031]-[0080]).

Regarding claim 16, Shimizu further teaches the electrical element (i.e., dummy photodiode D2, Fig. 1) is formed by a darkened, further reception device (i.e., Fig. 1, pages 3-6, paragraphs [0031]-[0080]).

Regarding claim 24, Shimizu further teaches the optical reception device is a photodiode; and said electrical element is a photodiode (i.e., Fig. 1, pages 3-6, paragraphs [0031]-[0080]).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (Pub. No.: US 2002/0175272 A1) in view of Ohtsuka et al (US Patent No. 5,182,448).

Regarding claim 17, Shimizu differs from claim 17 in that he fails to teach the optical reception device and the further reception device are monolithically integrated on a chip. Ohtsuka et al teaches the optical reception device and the further reception device are monolithically integrated on a chip (i.e., Fig. 1, col. 5, lines 39-66). Based on this teaching, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the optical reception device and the further reception device are monolithically integrated on a chip as taught by Ohtsuka et al in the system of Shimizu. One of ordinary skill in the art would have been motivated to do this since allowing reducing weight, size, power consumption, and cost of the whole of the system.

7. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (Pub. No.: US 2002/0175272 A1) in view of Hoang et al (Pub. No.: US 2002/0191263 A1).

Regarding claim 22, Shimizu differs from claim 22 in that he fails to teach the optical reception device and the electrical element are connected to a common supply voltage. Hoang et al teaches the optical reception device and the electrical element are connected to a common supply voltage (i.e., Figs. 4 and 5, pages 2 and 3, paragraphs [0021]-[0030]). Based on this teaching, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the optical reception device

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and the electrical element are connected to a common supply voltage as taught by Hoang et al in the system of Shimizu. One of ordinary skill in the art would have been motivated to do this since allowing providing a stable and accurate differential output and canceling effects of noise and environmental factors represented by the ambient current.

8. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (Pub. No.: US 2002/0175272 A1) in view of Hoang et al (Pub. No.: US 2002/0191263 A1) and further in view of Maxim (Spec Sheet, January 2002, cited by applicant).

Regarding claim 23, the combination of Shimizu and Hoang differs from claim 23 in that it fails to teach a power supply filter (e.g. low-pass filter connect to the common power supply) in order to reduce noise and parasitic effects in the power supply, e.g. provides a "clean" power supply. As evidence of this well known concept, prior art reference Maxim is provided. Maxim discloses a power supply filter in order to reduce noise and parasitic effects in the power supply (page 1, Typical Application circuit in which the power supply is filtered to remove noise).

9. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (Pub. No.: US 2002/0175272 A1) in view of Fujimura et al (US Patent No. 6,034,424).

Regarding claim 25, Shimizu differs from claim 25 in that he fails to teach a Package for package the differential amplifier, the optical reception device and the electrical element, the package being selected from the group consisting of a T0-46

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package, a TSSOP10 package, and a VQFN20 package. However, it is well known in the art to package the photodiode(s) with respective circuitry. Thereby, allowing for a smaller circuit footprint. Furthermore, claimed packages are well known and standardized packages in which their implementation is consider obvious. As evidence of these well known concepts, prior art reference Fujimura is provided. Fujimura disclose a package for packaging a photodiode and circuitry (FIGs. 1a and 1b and col. 1, lines 20-42) in which the package of a TO-46 package.

10. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shimizu (Pub. No.: US 2002/0175272 A1) in view of Fujimura et al (US Patent No. 6,034,424) further in view of Ewen et al (US 6,862,322).

Regarding claim 26, Hoang in view of Fujimura disclose the receiver circuit according to claim 25 as applied above. Hoang in view of Fujimura does not expressly disclose an integrated control circuit having a control terminal, the package having a terminal pin forming the control terminal. Ewen teaches an integrated control circuit having a control terminal (FIGs. 2B and 4B in which the receiver circuit has control circuitry with a control terminal), the package having a terminal pin forming the control terminal (i.e., col.3, lines 4-9 in which packaging with a control terminal inherently includes a terminal pin for adjusting control circuitry).

***Allowable Subject Matter***

11. Claims 20, 21 and 27-33 are allowed.

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***Response to Arguments***

12. Applicant's arguments with respect to claims 14, 16, 17 and 20-33 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
**HANH PHAN  
PRIMARY EXAMINER**